



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,564	02/25/2002	Tetsu Takahashi	1614.1218	8623
21171	7590	01/04/2008	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			HASAN, SYED Y	
		ART UNIT	PAPER NUMBER	
		2621		
		MAIL DATE		DELIVERY MODE
		01/04/2008		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/080,564	TAKAHASHI, TETSU
	<b>Examiner</b>	<b>Art Unit</b>
	Syed Y. Hasan	2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 11/13/2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 - 22 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 - 4, 8 - 15 and 19 - 22 is/are rejected.  
 7) Claim(s) 5 - 7 and 16 - 18 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>02/25/2002</u> .	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 09/07/2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 - 22 filed on 11/13/2007 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 3, 8, 9, 12 – 14, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 5504759) in view of Hatanaka et al (US 6397000) and further in view of Koizumi (US 5225909) and still further in view of Asai et al (US 2001/0009417)

Regarding **claim 1 and 12**, Inoue et al discloses a coding/decoding part performing coding and decoding a given signal (fig 5 and 7) in one of a plurality

of coding/decoding modes of different bit rates (fig 10, col 15, line 65 to col 16, line 12) a recording medium coupled with said coding/decoding part (fig 5, 6, col 7, lines 32 – 50) and a control part setting a predetermined bit rate to be applied by said coding/decoding part (col 14, lines 48 – 65) in case the given signal is output after being coded and decoded by said coding/decoding part thereof in said recording medium (col 17, lines 31 – 35)

However Inoue et al does not disclose coding/decoding without storage

On the other hand Hatanaka et al teaches coding/decoding without storage (fig 10, col 8, lines 52 – 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate coding/decoding without storage as taught by Hatanaka et al in the system of Inoue et al in order to provide an alternate path.

The combination of Inoue et al and Hatanaka et al does not disclose that the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output

On the other hand Koizumi teaches that the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output (fig 6, col 1, lines 17 – 26)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate that the image recording apparatus functions in at least two modes, a first mode in which the given signal is recorded/reproduced on the recording medium, and a second mode in which the given signal is not recorded/reproduced on the recording medium but is output as taught by Koizuma in the system of Inoue et al and Hatanaka et al in order to detect the difference between both outputs.

The combination of Inoue et al, Hatanaka et al and Koizumi does not disclose that switching between the first mode and the second mode is determined by a remote controller.

On the other hand Asai teaches that switching between the first mode and the second mode is determined by a remote controller (page 3, col 0051)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate switching between the first mode and the second mode is determined by a remote controller as taught by Asai et al in the system of Inoue et al, Hatanaka et al and Koizuma in order to operate the device remotely and not depend on the host device.

Regarding **claims 2 and 13**, Inoue et al, Koizuma and Asai et al do not disclose the image recording apparatus, wherein the predetermined bit rate is that on such a mode of the plurality of coding/decoding modes as to provide the highest image quality

On the other hand Hatanaka et al teaches the image recording apparatus,

wherein the predetermined bit rate is that on such a mode of the plurality of coding/decoding modes as to provide the highest image quality (fig 9, col 8, line 40 – 41, triple mode(EP mode))

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the image recording apparatus, wherein the predetermined bit rate is that on such a mode of the plurality of coding/decoding modes as to provide the highest image quality as taught by Hatanaka et al in the combined system of Inoue et al, Koizuma and Asai et al in order to provide the highest image quality.

Regarding **claims 3 and 14**, Inoue et al, Koizuma and Asai et al do not disclose the image recording apparatus, wherein the predetermined bit rate is further higher than that on such a mode of the plurality of coding/decoding modes as to provide the highest image quality

On the other hand Hatanaka et al teaches the image recording apparatus, wherein the predetermined bit rate is further higher than that on such a mode of the plurality of coding/decoding modes as to provide the highest image quality (fig 9, col 8, line 40 – 41, triple mode(EP mode))

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the image recording apparatus, wherein the predetermined bit rate is further higher than that on such a mode of the plurality of coding/decoding modes as to provide the highest image quality as taught by Hatanaka et al in the combined system of Inoue et al, Koizuma and Asai et al in

order to provide the highest image quality.

Regarding **claims 8 and 19**, Inoue et al, Hatanaka et al, Koizuma and Asai et al discloses all of the limitations in this claim (see claim 1 above) except a control part causing an input image signal to be automatically recorded into said recording medium even if no instructions for recording the input image signal is given and causing the image signal thus recorded into the recording medium to be accessible when predetermined instructions concerning the image signal is given.

On the other hand, Hatanaka et al further teaches a control part (fig 1, 18, col 2, lines 43—44, packet controller) causing an input image signal to be automatically recorded into said recording medium even if no instructions for recording the input image signal is given (figure 9, col 7, lines 21 – 40 illustrate automatic recording. Furthermore fig 9, col 7, lines 51 – 59 illustrate recording the image signal ) and causing the image signal thus recorded into the recording medium to be accessible when predetermined instructions concerning the image signal is given (col 7, lines 61 – 65 illustrate playback of the same recording material)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a control part causing an input image signal to be automatically recorded into said recording medium even if no instructions for recording the input image signal is given and causing the image signal thus recorded into the recording medium to be accessible when predetermined instructions concerning the image signal is given as taught by Hatanaka et al in

the combined system of Inoue et al, Koizuma and Asai et al in order to provide a reproduced video signal by itself.

Regarding **claims 9 and 20**, Inoue et al, Hatanaka et al, Koizuma and Asai et al discloses all of the above except that the image recording apparatus, wherein said control part does not perform the automatic recording of the image signal when the remaining storage capacity of the recording medium is less than a predetermined value

On the other hand, Hatanaka et al further teaches the image recording apparatus, wherein said control part does not perform the automatic recording of the image signal when the remaining storage capacity of the recording medium is less than a predetermined value (fig 9, col 8, lines 52 – 58, automatic recording of digital signal is prohibited)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the image recording apparatus, wherein said control part does not perform the automatic recording of the image signal when the remaining storage capacity of the recording medium is less than a predetermined value as taught by Hatanaka et al in the combined system of Inoue et al, Koizuma and Asai et al in order to prevent recording when storage capacity is not adequate.

5. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 5504759) in view of Hatanaka et al (US 6397000) and further in view of Koizumi (US 5225909) and still further in view of

Asai et al (US 2001/0009417) and still further in view of Rynderman et al (US 5563961)

Regarding **claims 4 and 15**, Inoue et al, Hatanaka et al, Koizuma and Asai et al discloses all of the limitations of this claim (see claim 1 above) except a control part automatically setting a bit rate corresponding to one of the plurality of coding/decoding modes to be applied by said coding/decoding part according to at least a remaining storage capacity A(bytes) of said recording medium.

On the other hand, Rynderman et al teaches a control part automatically setting a bit rate corresponding to one of the plurality of coding/decoding modes to be applied by said coding/decoding part according to at least a remaining storage capacity A(bytes) of said recording medium (col 3, lines 57 – 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a control part automatically setting a bit rate corresponding to one of the plurality of coding/decoding modes to be applied by said coding/decoding part according to at least a remaining storage capacity A(bytes) of said recording medium as taught by Hatanaka et al in the combined system of Inoue et al, Koizuma and Asai et al in order to facilitate the automatic processing of data in a storage medium.

6. Claims 10,11, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al (US 5504759) in view of Hatanaka et al (US 6397000) and further in view of Koizumi (US 5225909) and still further in view of

Asai et al (US 2001/0009417) and still further in view of Yoshida ( US 2003/0120942)

Regarding **claims 10 and 21**, Inoue et al, Hatanaka et al, Koizuma and Asai et al discloses all of the above except the image recording apparatus, wherein said control part causes the image signal to be automatically recorded into a file, which a user cannot access, of the recording medium

However, Yoshida et al teaches the image recording apparatus, wherein said control part causes the image signal to be automatically recorded into a file (page 36, 0837, automatically starts the recording operation) which a user cannot access, (page 19, para 0485, the system FAT 42 is a system region that the user cannot access and is a region such as for file management information where the control means 14 utilizes in order to control the system) of the recording medium

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate control part of the image recording apparatus causing the image signal to be automatically recorded into a file which a user cannot access, of the recording medium as taught by Yoshida et al in the system of Inoue et al, Hatanaka et al, Koizuma and Asai et al in order to cut back user intervention to record automatically and prevent unauthorized copying by preventing user access to restricted files.

Regarding **claims 11 and 22**, Inoue et al, Hatanaka et al, Koizuma and Asai et al discloses all of the above except that the image recording apparatus, wherein control information concerning the image signal is divided and recorded

into the recording medium in a directory area thereof and also an area thereof in which the image signal is stored separately

However, Yoshida et al teaches the image recording apparatus as claimed in claim 8, wherein control information concerning the image signal is divided and recorded into the recording medium in a directory area thereof and also an area thereof in which the image signal is stored separately (page 20, para 0493, whenever the recording of the AV data in a new recording unit is completed, the control means 14 produces or updates the file management information that indicates in which recording unit the AV data is recorded. Then, this file management information is stored in its own memory)

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the image recording apparatus as claimed in claim 8, wherein control information concerning the image signal is divided and recorded into the recording medium in a directory area thereof and also an area thereof in which the image signal is stored separately as taught by Yoshida et al in the system of Inoue et al, Hatanaka et al, Koizuma and Asai et al in order to provide improved control of the file in case accidental erase of data occurs. In this case the control file is still accessible to reproduce data.

#### ***Allowable Subject Matter***

7. Claims 5 – 7 and 16 – 18 are objected as being dependent on a rejected base claim, but would allowable if rewritten in independent form including all of

the limitations of the base claim and any intervening claims and amended to overcome the rejection(s) under 35 U.S.C. 102 set forth in this Office action.

Regarding **claims 5 and 16**, the prior art of record fails to teach, disclose or fairly suggest as recited in claim 5, the prior art fails to disclose the image recording apparatus, wherein:

control part sets the bit rate further depending on a time T (seconds) of recording reserved;

a maximum available recording bit rate Rmax (bps); and

a minimum available recording bit rate Rmin (bps); and

said control part determines the bit rate R (bps) by which the recording is performed to satisfy the following formula:  $T \times R = A$  wherein,  $R = R_{\max}$  when  $R > R_{\max}$ ; and  $R = R_{\min}$  when  $R < R_{\min}$ .

Regarding **claims 6 and 17**, the prior art of record fails to teach, disclose or fairly suggest as recited in claim 6, the prior art fails to disclose the image recording apparatus, wherein:

said control part sets a lower the bit rate by which the recording is performed when the remaining storage capacity A is less than a predetermined value.

Regarding **claims 7 and 18**, the prior art of record fails to teach, disclose or fairly suggest as recited in claim 7, the prior art fails to disclose the image recording apparatus, wherein:

the control part sets the bit rate further depending on a time T (seconds) of recording reserved; and

a minimum available recording bit rate Rmin (bps); and  
said control part determines the bit rate R (bps) by which the recording is  
performed to satisfy the following formula: T.times.R/8.Itoreq.Awherein  
R=Rmin when R.lt.Rmin.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to  
applicant's disclosure

Shimoda et al (US 5289190) discloses a recording/reproducing apparatus  
including control signal indicating high-efficiency coding.

Maturi (US 5694332) discloses a MPEG audio decoding system with  
subframe input buffering.

Ikeda (US 6240244) discloses a disk apparatus having a single recording  
head and capable of simultaneous recording and reproducing.

Morioka et al (US 6226443) discloses a recording and reproducing  
apparatus.

Mitsuno (US 6219311) discloses a disc recording method and device, and  
disc like recording medium.

Cheung et al (US 6538656) discloses a video and graphics system with a  
data transport processor.

Any inquiry concerning this communication or earlier communications from  
the examiner should be directed to Syed Y. Hasan whose telephone number is  
571-270-1082. The examiner can normally be reached on 9/8/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.Y.H.  
12/18/2007

*[Handwritten signature]*  
THAI Q. TRAN  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY CENTER 2600